

IMCB Invited Speaker



Speaker : Prof. Xi He
Endowed Research Chair, Boston Children's Hospital & Professor, Neuroscience and Stem Cell Biology, Boston Children's Hospital, Harvard Medical School, USA

Date : 16 May 2013 (Thursday)

Time : 4:00PM - 5:00PM

Venue : IMCB Seminar Room 3-46, Level 3, Proteos, Biopolis

Host : Prof. Wanjin Hong

Seminar :

Understanding Wnt morphogen regulation and signaling in development and disease

Wnt signal transduction is one of the most fundamental regulatory systems in animal development and human pathogenesis. Dr. He focuses on understanding the mechanism of Wnt signal transduction in development and diseases. He is particularly interested in Wnt/b-catenin signaling and noncanonical Wnt signaling in anterior-posterior (AP) patterning and gastrulation in vertebrate (*Xenopus* and mouse) embryos, stem cell regulation in mice, and chemical biology and therapeutic targeting of Wnt signaling in cancer and skeletal disorders. Wnt proteins represent a large family of secreted signaling molecules that engage distinct families of receptors. Wnt biogenesis and ligand-receptor interactions provide ample steps for regulation of this key signaling system. I will discuss various antagonists of Wnt signaling, including our identification of Tiki1, a Spemann Organizer-specific and Wnt-specific metalloprotease that inactivates Wnt morphogens for AP patterning (Zhang et al., *CELL* 149,1565-1577, 2012). I will also discuss the implication of these Wnt signaling modulators to human diseases.

About the Speaker :

Xi He, PhD, is an Endowed Research Chair and professor at F. M. Kirby Neurobiology Center and the Stem Cell Program at Boston Children's Hospital and Harvard Medical School. He received a bachelor's degree at Huazhong University of Science and Technology, Wuhan, China, and a Ph.D. under the supervision of Dr. Michael G. Rosenfeld at University of California, San Diego (UCSD). Dr. He did his postdoctoral training at National Cancer Institute (NCI) with Dr. Harold Varmus, who won Nobel Prize in 1989 for the discovery of the first oncogene. Dr. He became an assistant professor in 1997 and was promoted to professor with tenure in 2007. He was a Pew Scholar in Biomedical Sciences, Klingenstein Fellow in Neuroscience, a W. M. Keck Distinguished Young Scholar in Medical Research, and a Scholar of the Leukemia and Lymphoma Society. Dr. He received the Young Investigator Award from the Society of Chinese Bioscientists in America (SCBA), and holds a Chang Jiang Guest Professorship at Huazhong University of Science and Technology, Wuhan, China, inducted by the Ministry of Education of China in 2008. Dr. He is an Elected Fellow of American Association for the Advancement of Science (AAAS), USA, and has served on many review and advisory boards in academia and biopharmaceutical industry in the USA, Canada, European Union, UK, and China.



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